

Henry Cheng
Serial No.: 09/643,981
Amendment Accompanying Request for Continued Examination

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A mixer for mixing sound signals, comprising:

a mixer buffer for storing sample values for three or more sound channels, each sound channel including a main sound component and one or more corresponding auxiliary sound components;

send paths for sending the auxiliary sound components for each sound channel to a sound effects processor; and

return paths from the sound effects processor for separately respectively adding the effects-processed auxiliary sound components for each of the three or more sound channels channel to the respective corresponding main sound component.

Claim 2 (Original): The mixer according to claim 1, further comprising:
mixer volume controls for independently controlling the volume of the main and auxiliary sound components of each sound channel supplied to the mixer buffer.

Claim 3 (Original): The mixer according to claim 1, further comprising:
a surround encoder,
wherein the mixer buffer comprises left, right and surround sound channels and the surround encoder encodes information on the surround sound channel, including the

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effects-processed auxiliary sound components added to the surround channel, onto the left and right sound channels.

Claim 4 (Original): The mixer according to claim 1, wherein the sample values for three or more sound channels are accumulated for a plurality of voices

Claim 5 (Currently Amended): A sound effects processing system comprising:

a sound effects processor; and

a mixer comprising:

a mixer buffer for storing sample values for three or more sound channels, each sound channel including a main sound component and one or more corresponding auxiliary sound components;

send paths for sending the auxiliary sound components for each sound channel to the sound effects processor; and

return paths from the sound effects processor for separately respectively adding the effects-processed auxiliary sound components for each of the three or more sound channels to the respective corresponding main sound component.

Claim 6 (Original): The system according to claim 5, wherein the mixer further comprises:

mixer volume controls for independently controlling the volume of the main and auxiliary sound components of each sound channel supplied to the mixer buffer.

Claim 7 (Original): The system according to claim 5, wherein the mixer further comprises a surround encoder, and

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the mixer buffer comprises left, right and surround sound channels and the surround encoder encodes information on the surround sound channel, including the effects-processed auxiliary sound components added to the surround channel, onto the left and right sound channels.

Claim 8 (Original): The system according to claim 5, wherein the sample values for three or more sound channels are accumulated for a plurality of voices.

Claim 9 (Original): The system according to claim 5, wherein the sound effects processor provides reverb to the auxiliary sound components for each sound channel.

Claim 10 (Original): The system according to claim 5, wherein the sound effects processor provides delay to the auxiliary sound components for each sound channel.

Claim 11 (Original): The system according to claim 5, wherein the sound effects processor provides chorus to the auxiliary sound components for each sound channel.

Claim 12 (Original): The system according to claim 5, wherein the sound effects processor processes the auxiliary sound components for each sound channel using the same sound effects parameters.

Claim 13 (Original): The system according to claim 5, wherein the sound effects processor processes the auxiliary sound components for each sound channel using different sound effects parameters.

Claim 14 (Currently Amended): A video game system comprising:

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a video game machine for executing a video game program; and
a hand-held player controller connected to said video game machine and operable
by a player to generate video game control signals for the video game program,

wherein said video game machine includes an audio system for generating sound
signals for driving speakers, said audio system comprising:

a sound effects processor; and

a mixer comprising:

a mixer buffer for storing sample values for three or more sound channels,
each sound channel including a main sound component and one or more corresponding
auxiliary sound components;

send paths for sending the auxiliary sound components for each sound
channel to the sound effects processor; and

return paths from the sound effects processor for separately respectively adding
the effects-processed auxiliary sound components for each of the three or more sound
channels channel to the respective corresponding main sound component.

Claim 15 (Original): The system according to claim 14, wherein the mixer
further comprises:

mixer volume controls for independently controlling the volume of the main and
auxiliary sound components of each sound channel supplied to the mixer buffer.

Claim 16 (Original): The system according to claim 14, wherein
the mixer further comprises a surround encoder, and

the mixer buffer comprises left, right and surround sound channels and the
surround encoder encodes information on the surround sound channel, including the
effects-processed auxiliary sound components added to the surround channel, onto the
left and right sound channels.

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Claim 17 (Original): The system according to claim 14, wherein the sample values for three or more sound channels are accumulated for a plurality of voices.

Claim 18 (Original): The system according to claim 14, wherein the sound effects processor provides reverb to the auxiliary sound components for each sound channel.

Claim 19 (Original): The system according to claim 14, wherein the sound effects processor provides delay to the auxiliary sound components for each sound channel.

Claim 20 (Original): The system according to claim 14, wherein the sound effects processor provides chorus to the auxiliary sound components for each sound channel.

Claim 21 (Original): The system according to claim 14, wherein the sound effects processor processes the auxiliary sound components for each sound channel using the same sound effects parameters.

Claim 22 (Original): The system according to claim 14, wherein the sound effects processor processes the auxiliary sound components for each sound channel using different sound effects parameters.

Claim 23 (Currently Amended): In an audio system, a method of mixing sound signals, comprising:

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storing sample values for three or more sound channels, each sound channel including a main sound component and one or more corresponding auxiliary sound components;

sending the auxiliary sound components for each sound channel to a sound effects processor; and

separately respectively adding the effects-processed auxiliary sound components for each of the three or more sound channels channel to the respective corresponding main sound component.

Claim 24 (Original): The method according to claim 23, further comprising:

independently controlling the volume of the main and auxiliary sound components of each sound channel.

Claim 25 (Original): The method according to claim 23, wherein the three or more sound channels include left, right and surround sound channels and information on the surround sound channel, including the effects-processed auxiliary sound components added to the surround channel, are encoded onto the left and right sound channels.

Claim 26 (Original): The method according to claim 23, wherein the sample values for three or more sound channels are accumulated for a plurality of voices.

Claim 27 (Original): The method according to claim 23, wherein the sound effects processor provides reverb to the auxiliary sound components for each sound channel.

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Claim 28 (Original): The method according to claim 23, wherein the sound effects processor provides delay to the auxiliary sound components for each sound channel.

Claim 29 (Original): The method according to claim 23, wherein the sound effects processor provides chorus to the auxiliary sound components for each sound channel.